Nursing Practice in Rural and Remote Canada

Final Report to Canadian Health Services Research Foundation

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The Nature of Nursing Practice in Rural and Remote Canada
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Key Implications for Decision Makers

Nursing practice in rural and remote Canada is characterized by its variability, and complexity and by the need for a wide range of knowledge and skills in situations of minimal support and few resources. This study describes the rural and remote registered nursing workforce and the nature of their practice. It gives voice to the nurses in these regions.

- Managers and policy-makers need to better understand the realities of rural and remote practice. Creation of a "rural lens" can assist in the development of relevant policies and practices. This may be a useful component of a national rural and remote nursing strategy.

- In small communities, nurses' personal and professional roles are inseparable. The intertwining of nurses' everyday practice and their personal lives needs to be taken into account in developing policies and services.

- Because many rural and remote nurses work alone or with little backup in their everyday practice, there are pressing needs for providing professional supports at a distance, both in person and using information technology.

- Recruitment and retention of nurses can be more successful when undertaken with an understanding of the perceptions of nurses in rural and remote communities and in partnership with the communities themselves.

- New models of interprofessional practice can be developed that are supportive of the varied strengths and resources in rural and remote communities.

- Special attention needs to be paid to the recruitment, retention, and support of nurses in Aboriginal communities, as well as to ways in which continuity of care and culturally appropriate care can be provided.

- There is a pressing need for undergraduate and postgraduate education programs to prepare nurses for the realities of rural and remote nursing practice. Targeted funding is needed for university nursing programs that focus on preparing rural and/or remote nurses, in order to address the additional design and implementation costs.

- New ways are needed to systematically design and provide relevant continuing education for rural and remote nurses, including providing education on site, supporting nurses to travel for further and continuing education, and using information technology.

- A larger issue for some rural and remote communities than retirement may be the issue of migration – when nurses leave communities for education or alternate employment and do not return. Counting on overseas recruitment to fill these gaps is not a good option as only a fraction of foreign-educated nurses work in rural Canada.

- The distinctiveness of rural and remote settings and rural nursing practice will not be adequately captured until nursing databases are improved through the development of

unique personal identifiers, as well as relevant rural/urban indicators.

Executive Summary

Although registered nurses (RNs) are the key to Canadians in rural and remote areas having sustained access to high quality health care, little research has been done about them and their practice. In order to examine and articulate the nature of registered nursing practice in settings of primary care, acute care, community health, home care and long-term care within rural and remote Canada, we conducted research guided by the following four questions. Among registered nurses in rural and remote Canada:

1. What is the nature of nursing practice?
2. What are their roles and functions?
3. What are the commonalities and differences among roles and functions in various practice settings?
4. What factors facilitate or hinder nurses' practice and their development of expertise?

Four complementary approaches were undertaken concurrently to answer these research questions. Analysis of the Registered Nurses Database (RNDB) enabled the demographic profile of rural RNs to be generated for the first time for Canada as a whole and for the individual provinces and territories.[1] Systematic analyses of policy and administrative documents undertaken by the documentary analysis team allowed a critical view of the policy context within which rural and remote nurses practise.[2] A national survey of 3,933 RNs collected comprehensive information about rural and remote nurses' work, quality of work life, perspectives on rurality, and degree of satisfaction with work, communities and practice supports. Finally, an in-depth examination of 152 rural nurses' experiences through a narrative approach brought to life the interplay of the context and the nurses' practices in a variety of rural settings across the country. Each of the Co-Principal Investigators led one of the four approaches, assisted by a small group of Co-Investigators, research assistants, and in some instances, members of the Advisory Team.

As this study has created rich, multi-faceted data, this report touches on only a portion of the emerging results. Analysis is ongoing, as is a series of knowledge translation endeavors with decision makers across Canada. Illustrative findings that have the potential to inform decisions about the accessibility of care, the quality of care, and the sustainability of care are presented here.

Accessibility of Care

In order to provide accessible nursing care in rural and remote areas, there is a need for an appropriate supply of nurses who are suitably educated for the roles that they need to assume. We found that 18% (41,502) of RNs in Canada are providing care to the 22% (6.6 million) of Canadians living in rural and small town Canada. This lower nurse-to-population ratio in rural areas decreases from east to west. Although most RNs in both urban and rural settings work in acute care hospitals, a larger proportion of rural than urban nurses work in community-based settings, reflecting the importance of this type of workplace in rural Canada.

In most areas of practice, RNs in rural and remote Canada have greater demands for an expanded role of practice, in spite of the fact that they have a comparatively lower level of formal education than their urban colleagues. Additionally, they have significantly fewer clinical resource supports, with clinical and administrative leaders often located some distance away. They also have more difficulty obtaining additional clinical and academic qualifications. The lower numbers of rural RNs who have acquired further academic qualifications suggests that new ways of working with rural RNs and their employers need to be explored in order to make advanced educational opportunities relevant and accessible.

Quality of Care

The complexity of rural and remote nursing practice is vastly underestimated; policy and practice changes are needed to improve the quality of services nurses can provide. The interconnection between rural nurses and their context was most apparent in the narrative portion of the study, where the importance of community in shaping the nurses' work lives and everyday practices was clearly evident. Community demographics make a great deal of difference in what the nurses encounter in their practice, and influence the development of their skill sets and knowledge. Predominant in the advice from rural and remote nurses to new nurses, administrators, educators and policy-makers is the need for more understanding – the need to "learn to listen and listen to learn." Through learning and listening, there may be greater understanding of the realities of rural and remote practice, with the potential of developing policies, administrative practices, and education programs that reflect those realities. One means to do this would be the creation of a rural lens, a concise set of questions and processes, which

could help managers and policy-makers develop relevant policies and practices as well as illuminate the strengths of rural practice.

Sustainability of Care

Through an analysis of survey data, we found 11 statistically significant predictors of intent to leave. Individual variables associated with intent to leave were: gender, higher perceived stress, no dependent children or relatives, higher education, and fewer years employed in primary agency. Individual satisfaction levels also predicted intent to leave. Specifically, lower satisfaction with community and the workplace (in matters of scheduling and autonomy) were related to plans to leave within the next year. RNs were more likely to plan to leave if they were responsible for advanced decisions or practice, if they were required to be on call, or if they were working in a remote community. Administrators and policy-makers can begin to address these issues by better understanding gender differences, identifying stressors from the perspective of the nurses, and initiating in consultation with the RNs strategies that promote retention.

Migration patterns of rural and remote nurses also affect sustainability of care. Although more rural than urban nurses work in the province in which they are first registered, some provinces, particularly those in the west, depend on nurses educated in other provinces to provide the necessary registered nurse workforce in rural areas. Recruiting registered nurses from overseas is not an effective option as an extremely small proportion of foreign-educated nurses work in rural and remote areas of Canada.

In general, the findings of this study suggest that rural and remote nursing practice is more complex and multi-faceted than it is usually thought to be. By better understanding the realities of rural and remote practice, as well as by addressing in a more concerted way, issues such as education and workplace supports, the strengths of rural and remote nursing practice can be better mobilized. As a result, Canadians living in rural and remote parts of this country could more readily have appropriate access to high quality nursing care through a sustained nursing workforce.

Context

Rural health has been the subject of attention in recent Canadian policy initiatives, such as the Romanow and Kirby reports. The health of rural communities is in part dependent upon a sustained rural health workforce that provides accessible and high quality health care. Registered nurses (RNs) are the key component of that workforce. There are many rural and remote communities in Canada in which RNs are the only professional health care providers.

Despite their importance, nurses who practice in rural and remote settings have received limited attention from researchers and policy-makers in Canada and elsewhere. The role and functions of rural nurses have been studied in the U.S., Australia and New Zealand, but relatively little work has been done in Canada. This study is the most comprehensive to date internationally and in Canada, it is the first of its kind.

For many years, Canadian nursing association newsletters and journals have published anecdotal accounts of rural and remote nursing, but until 1998, there was limited systematic study of rural or remote nursing. Canadian studies have identified areas of concern for rural nurses,[3] how rural and northern nurses work and cope with limited resources and infrastructure,[4] challenges facing rural public health nurses,[5] and the issue of retention among public health nurses.[6] Other Canadian research has focused on nursing-care topics such as dementia care within rural communities,[7] the meaning of health among rural peoples,[8] and rural residents' experiences with specific illnesses, such as breast cancer.[9] Because rural and remote nursing practice issues cannot be viewed in isolation from the larger community context, work has been done to identify rural health indicators[10] and to describe the resiliency or ways in which communities deal with adversity[11] in order to potentially address the interdependence of communities and nursing practice. This current project builds on these studies by taking a

comprehensive look at rural and remote nurses and their practice in Canada.

There is no universally accepted definition of either rural or remote in Canada. As both an analytical and a sampling framework, we initially used Statistics Canada's characterization of "rural and small town Canada" (RST) as areas outside the commuting zones of larger urban centres.[12] To ensure that we captured RNs working in remote communities, we then explicitly included in our survey all nurses in the territories as well as those in nursing stations or outpost settings. The project design also enabled us to examine the meanings of rural and remote from the perspectives of nurses themselves.

Research Questions

The aim of the project was to examine and articulate the nature of registered nursing practice in settings of primary care, acute care, community health, home care and long-term care within rural and remote Canada. Specifically, the project was designed to:

- Articulate the roles and functions of registered nurses in rural and remote Canada;
- Develop a definition of rural and remote nursing;
- Identify commonalities and differences among roles and functions of rural and remote registered nurses in various practice settings among those broad geographical areas;
- Articulate salient factors in the context of registered nursing practice and how these factors contribute to the development of expertise;
- Identify areas of priority for organizational and policy support, and for basic and ongoing education for registered nurses in different rural and remote practice settings;
- Contribute to policy and management discussions on the practice, recruitment, retention, and education of nurses in rural and remote Canada.

These objectives focus around the following four research questions. Among registered nurses in

rural and remote Canada:

1. What is the nature of nursing practice?
2. What are their roles and functions?
3. What are the commonalities and differences among roles and functions in various practice settings?
4. What factors facilitate or hinder nurses' practice and their development of expertise?

Implications

Nursing practice in rural and remote Canada is characterized by its variability, complexity and the need for a wide range of knowledge and skills in situations of minimal support and few resources.

- Rural and remote communities are extremely different one from another, and as a result, the workplaces and roles of the nurses who work within them are equally varied. Rural nursing practice is unique and differs from urban practice, although the language used to describe it is often similar. Needed is a concise set of questions and processes to consider during the formation of policies and practices. Such a "rural lens" will help managers and policy-makers to "get beneath" the language and issues to appreciate the realities of rural practice, and will assist in creating relevant policies and practices. A rural lens can also illuminate the strengths of rural practice, which may inform approaches in urban settings to address similar problems. Through the use of a rural lens within a coordinated national strategy, the practice realities of rural and remote nurses in all provinces and territories can receive more consistent and concerted attention.
- In small communities, nurses' personal and professional roles are inseparable. The intertwining of nurses' everyday practice and their personal lives needs to be taken into

account in developing policies and services, as well as in recruiting and retaining nurses.

- Rural and remote nursing practice is shaped by the communities within which the nurses work and live.
- Because many nurses in rural and remote settings work alone or with little backup in their everyday practice, there are pressing needs for developing ways of providing ongoing professional supports at a distance, both in person and using information technology.
- Recruitment and retention of nurses can be more successful when undertaken with an understanding of the perceptions of nurses in rural and remote communities and in partnership with the communities themselves.
- Nurses in rural and remote communities interact with many other professionals, often at a distance. Unique solutions are needed for the unique needs that this presents. New models of interprofessional practice can be developed that are supportive of the varied strengths of and resources available to rural and remote communities.
- Special attention needs to be paid to the recruitment, recruitment and support of nurses in Aboriginal communities, as well as to ways in which continuity of care and culturally appropriate care can be provided.
- There is a pressing need for undergraduate and postgraduate education programs to prepare nurses for the realities of rural and remote nursing practice. A key way is to ensure that clinical practica are offered in rural and/or remote settings and supervised by teachers who are experienced practitioners in the area. University nursing programs that focus on preparing rural and/or remote practitioners need funding levels that recognize the additional costs of designing and providing education to students and working with teachers and/or preceptors in rural or remote settings.

- New ways are needed to systematically design and provide relevant continuing education for rural and remote nurses, including providing education on site, sufficiently supporting nurses to travel for further education, and using information technology. This last mode may require sufficient investment in relevant communication systems and hardware.
- Although the phenomenon of an aging nursing workforce is being faced in both urban and rural settings, a larger problem for some rural and remote communities than retirement is the issue of migration – where nurses leave communities for education or alternate employment and do not return. Counting on overseas recruitment to fill these gaps is not a good option as only an extremely small proportion of foreign-educated nurses work in rural Canada.
- The distinctiveness of rural and remote settings and nursing practice will not be adequately captured until nursing databases are improved through the development of unique personal identifiers, as well as rural/urban indicators that are of relevance to rural and remote nurses.

Approach

Four complementary approaches were undertaken concurrently to answer the research questions. Analysis of the Registered Nurses Database (RNDB) enabled the demographic profile of rural RNs to be generated for the first time for Canada as a whole and for the individual provinces and territories.[13] Systematic analyses of policy and administrative documents undertaken by the documentary analysis team allowed a critical view of the policy context within which rural nurses practise.[14] The survey team collected comprehensive information about rural nurses' work, quality of work life, perspectives on rurality, and degree of satisfaction with work, communities and practice supports. Finally, an in-depth examination of rural nurses' experiences

through the narrative approach brought to life the interplay of the context and the nurses' practices in a variety of rural settings. Each of the Co-Principal Investigators led one of the four approaches, assisted by a small group of Co-Investigators, research assistants, and in some instances, members of the Advisory Team.

Registered Nurses Database

Our initial analysis of the Registered Nurses Database (RNDB) has been published by the Canadian Institute for Health Information (CIHI).[15] CIHI maintains the RNDB, an annual collation of provincial and territorial nurses' registration data. For all RNs employed in nursing, the database includes one or more individual descriptors of sex, age, educational attainment (e.g., entry/initial nursing education, highest level of nursing education achieved, non-nursing university education) and employment characteristics (e.g., full-time or part-time status, position, primary responsibility). The RNDB also contains a number of geographical indicators (e.g., community of current residence, province or country of graduation from entry/initial nursing program, and province or territory of current registration).

Through our work with the RNDB, and for the first time ever, the characteristics of Canada's RNs were analyzed at sub-provincial, highlighting the similarities and differences between rural and urban nurses in terms of age, sex, education, and employment characteristics. These analyses were undertaken for the 234,393 (42,303 rural) RNs employed in nursing in Canada in 1994 and the 232,412 (41,502 rural) RNs employed in nursing in Canada in 2000. Integration of the RNDB data with census data for the respective years of analyses allowed, again for the first time, the computation of nurse-to-population ratios at sub-provincial levels of geography, enabling comparisons over time (1994 with 2000) between rural and urban. The RNDB provided the sampling framework for our survey, and has provided our narratives team

with insights on managing data and focusing analysis. It has also highlighted issues of interest such as the presence of sole RNs in communities, and prompted comparisons with our survey results on issues such as migration.

Documentary Analysis

We conducted analyses of documents to achieve an understanding of the policy and practice environment within which rural and remote nurses work. From over 200 documents dating from 1983 to 2003, we selected 159 publications for in-depth analyses. These included federal and provincial government reports, nursing professional association reports, Health Canada reports, and research reports on relevant topics. The documents were located through extensive web-based searches and contacts with the project's Advisory Team, nurses and other professionals in the field. Rist's policy cycle of formulation, implementation and accountability was used to develop web-based analytical guidelines.[16]

The documentary analysis research team analyzed the documents according to each component of the policy cycle by completing the web-based forms, and by having email discussions and regular face-to-face meetings. In both a preliminary and final report, we used the following five thematic policy areas as categories for presentation: advanced practice, nursing practice issues in Aboriginal communities, educational preparation for rural and remote areas, physician supply in rural and remote areas, and health care delivery in rural and remote areas. Findings from our documentary analysis have prompted questions in these thematic areas to be asked of the survey and narrative data.

Survey

We carried out a national survey of registered nurses working in rural and remote areas using a questionnaire developed by the survey team based on relevant literature reviews and in

consultation with content experts. It was tested, and where appropriate, administered in either French or English. It included questions about demographics, employment issues, community context, roles, satisfaction, health, work environment, community context, practice supports, and career plans. The questionnaire was mailed to a sample of RNs, with follow-up based on Dillman's tailored design method.[17] Assuming that the rural-to-urban ratio of nurses was similar to that of the population in the provinces,[19] we determined that 3,500 rural nurses would provide estimates that would be statistically significant nationally and provincially with 95% and 90% levels of confidence, respectively.

Sampling was done in collaboration with the professional nursing colleges or associations of each province and territory, using the databases of all RNs with active registration while maintaining anonymity and confidentiality. The sampling strategy was two-fold. First, a random sample was selected from RNs with rural and small town addresses in each of the 10 provinces. Second, as an attempt to capture "remote" areas, the questionnaire was mailed to: (1) the total population of Canadian RNs who indicated on their registration forms that their primary workplace was a nursing station or outpost setting, and (2) all RNs registered in the territories. The 3,933 eligible respondents represent all provinces and territories with an overall response rate of 68% after correcting for duplicate registrations, address problems, and ineligibility (e.g., those who live in rural communities but work in urban areas).

Narratives

From all provinces and territories and all areas of practice, 152 registered nurses shared their experiences of what it means to be a nurse in rural and remote Canada. The 11 francophone nurses from Quebec and New Brunswick were interviewed in French.[20] Nurses were recruited through word of mouth, referrals and advertisements in the national and provincial association

journals and newsletters. We included several nurses who live in urban areas, but who work in remote, fly-in communities. Nurses were interviewed by telephone, with interviews lasting for an average of 70 minutes (but ranging from 45 to 180 minutes). We asked the nurses to tell about experiences in rural and remote communities within the past five years that were both ordinary and atypical. As well, we asked them for recollections of incidents that they felt made a difference to clients or where breakdowns occurred. The nurses were also asked what advice they would give to new nurses coming to work in rural and remote settings, as well as advice to educators, administrators and policy-makers concerned with rural nursing.

We transcribed and examined the interviews for themes of similarities and differences so that we could arrive at an interpretive description of what it means to be a nurse in rural and remote settings.[21] The responses to the request for advice were separately examined for descriptive themes with the goal of expressing the advice in the words of the nurses.[22]

Integrating Approaches

We analyzed separately the data within each of our four approaches and prepared separate reports on them. Throughout the project, the Co-Principal Investigators have discussed preliminary findings and the presence or absence of particular themes within the data from the various approaches. For example, 169 communities in which there is only one RN ("sole RN communities") were identified through the analysis of the RNDB. This prompted the survey team to analyze nurses who reported one or fewer RN positions in their workplaces. As well, the narrative team explored what it means to work alone and the experience of being the only nurse living and working in a community.

Linkages between the approaches are not as straightforward as they might be. We cannot track the same nurses from the RNDB to the survey to the narratives. Despite attempts to use a

consistent base for sampling and cross-linking, data sets do not always intersect well; a lack of a unique identifier hampers efforts to do so. Due to the richness of data and the multi-faceted nature of the themes, separate and joint presentations and publications among the approaches are arising from these findings.

We have found the most productive approach to data integration to be separate analysis of the data within each approach, coupled with continuing discussions about preliminary findings with researchers and decision makers. From these, productive decisions are being made about how to "slice" these very rich data sets to answer policy, practice and theoretical questions.

Results

The data generated in the project are rich and plentiful: analyses are continuing with the advice of the project's Decision Maker Advisory Team. Illustrative findings are reported here. Further details are provided in study publications.

Defining Rural and Remote

The documentary analysis identified that there was no discussion or analysis of the terms "rural" or "remote" in the documents and that the meaning and significance of these terms have been taken for granted. Because there are no definitions of these terms that are accepted by all Canadians or even by all those providing health services, the Nursing Practice in Rural and Remote Canada study used a three-step approach to the use and definition of these terms.

In the first instance, the RNDB analysis was undertaken using pre-existing definitions and geographical units that have been employed by Statistics Canada for several decades. "Rural" was equated with the expression "rural and small town Canada" (RST). RST designation is used for those communities with core populations of less than 10,000 that are people located outside the larger urban centres of Canada that are referred to as census metropolitan areas or

census agglomerations. At various stages in our analyses, RST communities were subdivided into four metropolitan-influenced zones based on commuting flow patterns. These terms are found and defined in many Statistics Canada publications but are best summarized by du Plessis et al.[23]

Secondly, for the purpose of our national survey, we used "rural" as equivalent of RST and we defined "remote" based on geographical location (northern territories) or nursing workplace (outpost or nursing station).

These first two steps in defining the terms "rural" and "remote" are essentially geographical in nature and convenient for statistical and administrative purposes. Geographical parameters, particularly measures of distance to medical facilities, form the basis of most published indices of rurality or remoteness. However, we felt that they might not capture the essence of rurality or remoteness in the context of nurses who live and work in these areas. Our third step, then, was to encourage our survey participants to share their perspectives of what these terms mean. While distance descriptors are relevant, rural and remote RNs said that for them, the concepts rural and remote include considerations of isolation, access to amenities both for themselves and their families (shopping, non-medical services, leisure activities), socio-demographic characteristics of the communities within which they live and work, availability of health care resources (staff, equipment and facilities, medical transportation, etc.), and the character of their nursing practices (first-line providers of care, levels of responsibility, etc.). Most of these are very difficult to build into a simple index of rurality or remoteness but are fundamental to the practice of nursing in these areas of Canada.

Access to Care

Access to care is one of the central concerns of rural and remote communities across

Canada. A continuing supply of registered nurses, in a variety of roles, is required for health services to be available. Additionally, the nurses need to be appropriately prepared and supported through ongoing staff development and continuing education.

Supply of Nurses

We used the RNDB to examine the overall supply and distribution of Canada's rural RN workforce. Analyses of that database and associated census data enabled us to enumerate the numbers of RNs working in rural and remote parts of Canada and to generate nurse-to-population ratios at both provincial/territorial and sub-provincial/sub-territorial levels. Referring to the year 2000 unless otherwise specified, some of the highlights of the work reported earlier[24] are noted below:

- 41,502 registered nurses were located in rural and small town Canada in 2000, a decrease of 2% since 1994.
- 18% of all RNs employed in nursing in Canada work in rural areas, where 22% of the Canadian population live.
- The absolute number of RNs working in rural Canada has decreased over the past decade, while the absolute numbers of people living in rural and small town Canada has increased. This has meant decreases in nurse-to-population ratios in both rural and urban areas of Canada. Currently, the overall nurse-to-population ratio stands at 76 nurses per 10,000 population, down from 82 in 1992.
- There are 62 nurses per 10,000 population in rural Canada and 78 nurses per 10,000 population in urban Canada. Caution must be exercised when comparing these ratios as they do not take into consideration the differences in nursing services provided in rural and urban areas.

- In general there is an east to west trend in nurse-to-population ratios with the higher ratios being in eastern Canada.
- While nurse-to-population ratios are useful general descriptors, they fail to recognize the geographical problems (e.g. distance, isolation) that rural RNs must cope with and the problems of health care access that rural people face. These ratios also fail to differentiate between various practice patterns and the context (e.g. proximity of physicians and other health care providers) within which nurses work.

Education

The results of the RNDB indicated that among the total population of rural and remote nurses in Canada, 81% have nursing diplomas, 18% have bachelor's degrees in nursing, and 1% have graduate nursing degrees. Our survey revealed the same pattern of education but in different proportions, because of the over-sampling of the remote group and the higher levels of education among nurses in remote areas such as the territories. In the survey, a diploma was the highest education level for 73% of RNs, while 27% of them had a bachelor's degree. There was considerable regional variation. Our documentary analysis confirmed that there is little information in government, education or nursing association documents regarding preparation of RNs for rural and remote areas of Canada. Some of the highlights about nursing education from the documentary analysis are below:

- Most nursing association documents include rural under other issues such as accessibility. For example, the College of Nurses of Ontario discusses the need for nursing education programs to reduce barriers due to geographic location.
- Entry-level competencies have been developed for provincial and territorial nursing associations based upon generic requirements, without specific comments regarding rural

or remote nursing practice settings.

- The majority of the literature that addresses education for remote practice focuses on advanced nursing practice and First Nations and Inuit health needs.
- Some education programs are rural-focused due to their physical location. Examples include:
    - Aurora College in the NWT and Nunavut Arctic College, which offer BScN programs within which students engage in rural practice for their clinical placements;
    - The University of Northern British Columbia, whose curriculum is geared to preparing nurses for practice in rural, northern and First Nations communities;
    - The University of Saskatchewan, which encourages rural placements in all its nursing education programs. Of note is the collaborative offering of the Nursing Education Program of Saskatchewan at the Prince Albert site by the First Nations University of Canada and the University of Saskatchewan;
    - The University of Lethbridge, the University of Calgary, and Laurentian University, which have rural-focused options.
- No government documents were located that address the need to provide educational opportunities and assistance for students in rural sites, and there is no indication that any nursing programs include telehealth in their curriculum. The availability of telehealth technology in rural areas varies by jurisdiction and by feasibility.
- Policy documents showed little recognition of the complexity of rural practice and the need for undergraduate and postgraduate education for rural and remote practice.

Nurses who participated in our narrative approach recommended the following

educational supports for rural and remote nursing practice:

- Reality-based cases within nursing programs;
- Part of the curriculum offered in rural settings;
- Educators who are specialized in knowledge and experienced in rural and remote practice;
- A more appropriate basic education that is suitable for rural and remote practice;
- Additional infrastructure and financial support for educational institutions that are preparing nurses for rural nursing;
- Telehealth education at universities to prepare nurses for this mode of delivery;
- Extended orientation and mentoring programs for new graduates and other nurses who choose to work in rural or remote areas.

Quality of Care

Rural and remote nurses who participated in the narrative approach have told us that the complexity of their practice is vastly underestimated, and that policy and practice changes are needed to improve the quality of services that they can provide. The interconnection between rural nurses and their context was most apparent in the narrative portion of the study, where the importance of community in shaping the nurses' work lives and everyday practices was clearly evident. This importance is not only for nurses in community roles, such as public health, home care and primary care (nursing station, outpost, nurse practitioner, etc.), but also for nurses practising in acute care and long-term care facilities. An analysis of the nurses' experiences reveals that several key aspects of living and working in a community shape the nurses' practices and the quality of services that they can provide.

Community demographics make a great deal of difference in what the nurses encounter

in their practice, and shape their skill sets and knowledge. The community's size, distance from other centres, climate, and the demographics of its people influence both the focus of the nurses' attention and their work, not to mention the resources available to the nurses. The direct relationship of rural and remote nurses to their communities brings with it responsiveness to the communities and their needs.

> *We are very responsive in our community because we see those people in our churches and in our grocery stores. And so you know we try and be all things to all people, maybe that is kind of bad. But in the end we are the ones who see these people outside of our work life too.*

Community requirements shape practices in direct ways. In some communities and roles, where there are few nurses and many demands, it may be in the form of demanding on-call requirements: "*I remember being up in this same community and working 36 hours straight, no sleep, no break, nothing.*" In other situations, it may be the expectations of community leaders: *Well, the band chief said we were here to care for this community and this was what we had to do. And he made no bones about it that if we didn't do it then they were going to ban us from the community."*

It takes nurses with extensive knowledge and skills to be able to work successfully over long periods of time in such settings. The ways in which the nurses know the clients in the context of community, and the community in the context of the clients, is centrally important. Quality nursing practice is enabled by the development and maintenance of trusting working relationships between nurses and clients, and nurses and their communities. Nurses noted the challenges, particularly in Aboriginal communities, and in communities where there is high nursing turnover coupled with the difference of culture.

Predominant in the advice from rural and remote nurses to new nurses, educators, administrators, and policy-makers was the need for more understanding – the need to "learn to

listen" and to "listen to learn":

- To new nurses, the advice was: *"Number one, do a lot of listening initially, and very little talking."* Take time to observe and learn about the community, culture and workplace. Take time to get to know the community, and for the community to know you. Realize that there will be a steep learning curve, even for experienced nurses, and that work routines and processes will be different from those that nurses may be accustomed to in urban settings.
- To educators, emphasize ways of learning that will help nurses learn to listen: *"Teach them …how to use resources -- how to find the answers. Don't give it to them; don't feed it to them. Guide them, but, because when you're in the remote areas you're on your own, you've got to develop your own motivation and your own way of getting information."*
- To administrators and policy-makers: "*Listen to your nurses! Listen to them and respect their opinions and have an open dialogue.*"

Rural and remote nurses who participated in our narrative study, were particularly concerned that policy-makers and administrators did not sufficiently understand the realities of rural and remote practice, and that this lack of understanding hindered practice in important ways. Administrators and policy-makers need to listen to the nurses in order to:

- Recognize and support the distinctiveness of rural and remote nursing practice, and to support those who practise in acute care, long-term care, home care, public health and primary care settings.
- Put legislation and "*systems that support excellent practice*" into place that will concretely support the scope of practice that nurses find themselves assuming in rural and remote settings, supports that adequately recognize the interprofessional character of

much of rural and remote nursing practice.

- Value nurses and involve them in the shaping of their practice and work environments. Too frequently, rural and remote front-line nurses feel that they are peripheral to the decision making that goes on about their work and work environments.
- Adequately recognize the intimate involvement of rural and remote communities in the provision of their health services. For example, nurses asked for mechanisms that could assist Aboriginal communities to learn *"how the band can support a nurse in his or her role in the community."* Others asked for regional planners to better understand that front line nurses in all rural and remote practice areas have to plan programs and act always *"with the community in mind and what does the community think."*

Throughout the narrative interviews, nurses talked about the difficulties in communicating the complexity and character of their practice. They found that although the words they used were the same as in urban areas (e.g., "complex," "distance"), the meanings were different because of the community and practice contexts. They talked of needing to get "*underneath the words*" so that their meanings could be more clearly understood by planners and administrators who were not familiar with the realities of rural and remote settings.

Sustainability of Care

There has been widespread interest in the retention of RNs and other health professionals in the workplace in recent years. The sustainability of the RN workforce links directly to sustainability of health care in rural and remote settings. Two areas of note are the nurses' intent to leave and migration.

Intent to Leave

In our survey, we asked RNs about intent to leave: "Do you plan to leave your present

position?" "Yes" was taken to mean that the RN intended to leave their present position within the next twelve months, and "no" to mean no plans to leave within the next year. Overall, 17% of RNs planned to leave their present position in rural and/or remote Canada in the next year.

We also asked numerous questions that could be related to their intent to leave. In the statistical analysis, we selected 41 variables from the 30-page questionnaire that met our initial criteria for an association with the outcome of the intent to leave in the next year. Conceptually, these variables all fit within one of three categories: the perspective of the individual, the workplace, or the community. Individual variables were either specific attributes (socio-demographic, health, professional) or variables under the individual RN's control, such as perceptions of satisfaction with work or community. The workplace variables were defined as under the control of the employer, and the community variables were defined by community characteristics.

Our aim in this analysis was to help understand the reasons why some RNs planned to leave and others planned to stay. We found 11 statistically significant predictors of intent to leave. Men were twice as likely to plan to leave as women. Other individual variables associated with intent to leave were: higher perceived stress, no dependent children or relatives, higher education, and fewer years employed in the primary agency. Individual satisfaction levels predicted intent to leave; specifically, lower satisfaction with community and the workplace (in matters of scheduling and autonomy) were related to plans to leave within the next year. RNs were more likely to plan to leave if they were responsible for advanced decisions or practice, if they were required to be on call, or if they were working in a remote community.

Implications for policy-makers and administrators from these data are:

- Understand gender differences in work life, especially in remote settings;

- Identify stressors from the perspective of RNs and develop strategies to decrease these stressors in collaboration with the nursing staff;
- Consult with staff about job scheduling and being on call;
- Attend to the needs (e.g., flexibility) of nurses with dependent children and relatives;
- Recognize nursing staff who have been longstanding employees;
- Understand that RNs in advanced practice and remote settings in Canada have somewhat higher education than other rural nurses. Some of these nurses may leave to continue their education.

Although this analysis focused on intent to leave rather than leaving behaviour (i.e., retention), the predictors identified provide some guidance for the development of policy to enhance sustainability of the nursing workforce in rural and remote Canada. The analysis of migration patterns from the survey adds a behavioural dimension to the sustainability issues.

Migration

In the context of health human resources planning, and especially in the examination of the supply and distribution of RNs in rural and remote Canada, migration patterns have not been examined as much as they might be. Little work has been done in this field largely because of the difficulties of acquiring appropriate data. In this study, we have examined migration patterns, particularly inter-provincial/territorial moves, using data from the RNDB data as well as from our own national survey. Some of the key findings from these analyses are listed below:

- Both numerically and proportionally, few foreign-educated RNs work in rural and remote Canada; it is unlikely that recruiting nurses from overseas would substantially decrease nursing shortages in these parts of the country.
- For Canadian-educated nurses, the majority of RNs practise in the province in which they

were first educated; if they do migrate it is most likely that they will move to an immediately neighbouring province or to a province with a large population, notably to Ontario, Alberta, or British Columbia.

- Newfoundland and Labrador is the province least likely to attract RNs from other provinces.
- British Columbia relies heavily on other provinces as 40.3% of the rural RN workforce there is made up of nurses whose initial nursing education was received elsewhere in Canada.
- Continuing beyond the east to west flow, the territories are the most dependent areas of Canada in terms of the need to attract nurses who were educated in other jurisdictions; 98% of the Canadian-educated, rural RNs working in the territories received their nursing education from a provincial nursing program.
- Overall, 11.8% of nurses working in rural and remote areas of Canada migrated from one province/territory to another some time since their initial nursing education.
- This overall proportion masks the considerable variation that exists for sub-provincial units.
- As RNs increase their levels of education, in both nursing and non-nursing areas, there is an increased probability that they will migrate, first for the purpose of schooling and then for work.
- Once an RN moves, it is less likely that they will return.

As a result of their very careful, detailed analyses of the age-cohorts of Canada's registered nurses, O'Brien-Pallas et al. predict that with a typical retirement age of 65 years, "Canada is projected to lose 29,746 RNs aged 50 or older to retirement or death by 2006, a total

equivalent to 13% of the nursing workforce in 2001."[25] With overall migration rates within Canada in the 10-30% range or more, mobility may be even more important than retirement with respect to the loss of nursing care providers. This is particularly so in the small and more vulnerable rural communities of some areas of Canada. These communities are losing people who are not only health care providers but also direct contributors to the social and economic well-being and therefore the sustainability of those communities.

Additional Resources

The *Nature of Nursing Practice in Rural and Remote Canada* study website is at http://ruralnursing.unbc.ca. Reports and presentations arising from the study are posted there, some of them in downloadable PDF format. The website contains a list of study publications as well as links to other relevant sites.

Further Research

As this study has created such rich, multi-faceted data, this report only touches on a portion of the emerging results. Analyses are ongoing, as is a series of knowledge translation endeavours with decision makers across Canada. Further work that draws on the study data is under way or planned in the following:

- Nurse practitioners in rural and remote Canada;
- Scope of nursing practice and advanced practice roles in rural and remote communities;
- The development of a rural lens to inform policy, management and practice decisions;
- Clinical leadership and management;
- "There's only me": The sole RN in rural and remote communities;
- Perinatal nursing practice in rural and remote communities;

- Appropriate education for rural and remote practice;
- Nurses' experience of violence in rural and remote workplaces.

Additionally, further work is under way in articulating the practice of nurses in the various practice areas and in the various regions of the country. This work will be focused in response to the concerns and priorities of national and regional decision makers.

The study has also revealed the need for further work in several areas, including:

- Interdisciplinary models of care that respect and reflect the variation of communities, practice settings and roles in rural and remote Canada;
- The integration of advanced practice nurses in rural and remote communities;
- The interrelationship between nursing practice and the health of rural or remote communities;
- The incorporation of findings into educational program planning, policy-making, and health service delivery.
- The practice, support and educational needs of foreign-educated nurses in rural and remote communities.

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